

RCC

ESSAY



Interns tumor

MC solid neoplasm of the kidney

Accounts for

90% of renal tumors

2-5 %of all cancers in adult male

1-3% in women

Familial or sporadic

Familial RCC

Von hippel lindau is the most commonly associated syndrome.

AD

Includes

cc RCC, (clear cell)

Pheochromocytoma

Retinal angioma,

Hemangioblastoma of the brainstem,
cerebellum, spinal cord

Etiology

Cigarette smoking

Obesity

Hypertension

Acquired renal cystic disease in CKD

Presentation

Classic Triad

flank pain a mature area, palpable mass.

Presenting symptom is a hematuria.

Advanced disease

Fever, malaise,

weight loss

bilateral lower limb edema

right-sided varicocele due to thrombus and IVC

30% paraneoplastic syndrome

High ESR, hypertension anemia hypercalcemia

25% has metastasis.

Cannonball lung Mets or pathological fractures

Pathology

cc RCC ,solitary

from proximal renal tubular epithelium slow-growing
bulge out of the renal contour.

Familial RCC

bilateral with multiple tumors

Prognosis depends upon nuclear grading

Other types

papillary RCC

chromophobe RCC

collecting duct carcinoma

renal medullary carcinoma.

Sarcomatoid has poor prognosis.

Spread

direct Invasion to perinephric tissue through the capsule.

Encroach into the renal vein as thrombus.

Vein wall Invasion carries poor prognosis

Must do investigations

CBC+ESR

S. creatinine

LFT

LDH

corrected serum calcium

Coagulation markers

urine analysis

High alkaline phosphatase-? skeletal Mets

do bone scan.

Radiological investigation

USG abd

Triple phase CT is the investigation of choice

RCC shows contrast enhancement > 15 HU .

Detects tumor

size

Extend

Venous involvement

Regional node involvement

status of the adrenal gland

Intra abdominal mets

functioning of the contralateral kidney

MRI

superior to detect

tumor infiltration into the vein wall

level of the thrombus.

Involvement of the lymph node, renal sinus,
vein wall indicates poor prognosis

Than

presence of the tumor thrombus in the
renal vein.

Staging is TNM

stage 1

tumor less than 7 cm in largest dimension limited to kidney

stage 2

tumor greater than 7 cm in largest dimension limited to kidney

stage 3 is tumor encroaching into major veins or adrenals with intact gerota fascia or with regional lymph nodes

stage 4 tumor beyond gerota fascia

Management

Nephron sparing surgery

Radical nephrectomy.

Nephron sparing surgery.

small renal tumors less than 4 cm

Partial nephrectomy for do most between 4 to 7 centimeters.

In tumors with solitary kidney and patients with pre-existing renal dysfunction.

Alternative techniques for small tumors are
surveillance

cryoablation in patients with higher risk

Radical Nephrectomy is removal of the entire kidney
gerotas fascia with ipsilateral adrenal gland and regional
lymphadenectomy

. Laparoscopy open surgery or robotic surgery

Lymphadenectomy is done for high-risk patients with large primary tumors and enlarged lymph nodes.

Management of IVC thrombus

5 to 10% cases

Thrombus extending into retrohepatic or suprahepatic IVC requires full mobilization of the liver.

Thrombus into the right atrium requires cardiopulmonary bypass and circulatory arrest

Management of metastatic RCC

30% cases

Performance status

time from diagnosis to systemic therapy

Hb level

calcium level

platelet and neutrophil count used for stratification of risk.

Tyrosine kinase Inhibitors sunitinib Pazopanib

RCC is an immunogenic tumor.

first generation agent interleukins interferon

Targeted therapy, like immune checkpoint Inhibitors and anti program death1 or programmed death' ligand 1 Inhibitors used.

Cytoreductive nephrectomy in intermediate risk patients.

palliative nephrectomy in intractable hematuria, pain & symptomatic PNS

Angio embolization of tumor in unfit patients with intractable hematuria